

## REMARKS

### In the drawings

Replacement drawings are being provided herewith

### Claim rejections 35 USC §102

Claims 1-3, 5-9, 11-13 are rejected as anticipated by Eagles (US 4,315,533). The applicant respectfully traverses the rejections as follows:

#### Claim 1:

The examiner argues that pipeline disclosed in Eagles is as a spiral, according to the broadest interpretation of the term "spiral". The applicant respectfully believes that the term "spiral" cannot reasonably be interpreted to cover the structure disclosed by Eagles.

Below are the definitions of "*spiral*" and "*zigzag*" in Oxford's Online Dictionary of English (emphasis added). These definitions are believed consistent with the understanding of those terms by one skilled in the art, and consistent with the use of those terms both in the present specification, and in the disclosure of Eagles:

### **Oxford Dictionary of English** om

#### **spiral**

→ *adjective* winding in a continuous and gradually widening (or tightening) curve, either around a central point on a flat plane or about an axis so as to form a cone: *a spiral pattern*.

• winding in a continuous curve of constant diameter about a central axis, as though along a cylinder; helical. • (of a stairway) constantly turning in one direction as it rises, around a solid or open centre. • (*Medicine*) (of a fracture) curving round a long bone lengthwise. • short for spiral-bound: *a spiral notebook*.

→ *noun*

1. a spiral curve, shape, pattern, or object: *a spiral of smoke*.

- (Astronomy) short for spiral galaxy. 2. a progressive rise or fall of prices, wages, etc., each responding to an upward or downward stimulus provided by a previous one: *an inflationary spiral*.
- a process of deterioration through the continuous increase or decrease of a specified feature: *this spiral of deprivation and environmental degradation*.

→ **verb** (spirals, spiralling, spiralled; (US) spirals, spiraling, spiraled)

1. [no obj., with adverbial of direction] move in a spiral course: *a wisp of smoke spiralled up from the trees*.

- [with obj. and adverbial] cause to have a spiral shape or follow a spiral course: *spiral the bandage round the limb*. 2. [no obj.] show a continuous and dramatic increase: *inflation continued to spiral* [as adj.] (spiralling) *he needed to relax after the spiralling tensions of the day*.

- ( spiral down/downward) decrease or deteriorate continuously: *he expects the figures to spiral down further*.

- DERIVATIVES spirally *adverb*.

- ORIGIN mid 16th cent. (as an adjective): from medieval Latin *spiralis*, from Latin *spira* 'coil' ( see spire<sup>2</sup>).

## Oxford Dictionary of English om

### zigzag

→ **noun** a line or course having abrupt alternate right and left turns: *she traced a zigzag on the metal with her finger*.

- a turn on a zigzag course: *the road descends in a series of sharp zigzags*.

→ **adjective** having the form of a zigzag; veering alternately to right and left: *when chased by a predator, some animals take a zigzag course*.

→ **adverb** so as to move right and left alternately: *she drives zigzag across the city*.

→ **verb** (zigzags, zigzagging, zigzagged) [no obj.] have or move along in a zigzag course: *the path zigzagged between dry rises in the land*.

- DERIVATIVES zigzaggedly *adverb*.

- ORIGIN early 18th cent.: from French, from German *Zickzack*, symbolic of alternation of direction, first applied to fortifications.

The applicant believes that the examiner's interpretation of Eagles is inconsistent with the accepted definitions of the terms "spiral". The pipeline sections AB and AC disclosed in Eagles etc. are made of straight lengths of tube which are connected with swivels such that the straight lengths of tubes form a zigzag pattern.

Eagles describes the disclosed structure as follows (see col. 4, line 52-55): "*Carried from the main boom structure Q are typically a pair of walking pipe assemblies AB, AC. These consist of straight lengths of tube arranged in a zig-zag or "lazy-tongs" fashion interconnected by swivels AD, ...*"

In contrast, the claimed invention comprises a pipeline section configured as a spiral, i.e. the pipeline section winds in a continuous curve of constant diameter about a central axis, as though along a cylinder.

The examiner claims (see item 6 of the Office Action) that "*... the pipeline AD of Eagles is connected by swivel joints, and at each of those swivel joints are 90 degree elbow bends in the pipeline going into the swivel joints. The combination of the elbows and joints and the manner in which they are connected configures the pipeline in such a manner that this pipeline is configured as a spiral in the broadest interpretation of the meaning spiral.*".

As can be seen from the accepted definitions of the terms, it is apparent that a spiral shape and a zigzag shape are mutually exclusive. Thus to interpret a zigzag pattern as a spiral in the "broadest interpretation of the meaning of spiral" is contrary to the meaning of the term as used in the instant application. The examiner can not disregard the meaning an applicant imparts to a claim term, especially when consistent with common interpretation of those terms, without providing some support for the alleged "broadest interpretation".

The examiner further argues (see item 6 in the Office Action) that "*The fact that the shape of the pipeline bends of Eagles are more abrupt in comparison to applicant's invention are irrelevant, since there has been no exact limitation which defines what the spiral shape is to be.*" The applicants respectfully believes that they are not required to specify what the spiral

shape of the pipeline section is to be, since a spiral shape has a clear definition in the art, as can be seen from the dictionary definition above. A number of geometrical shapes are well defined by their name – a square has a well defined shape and there is no need to explain what a square shape is. A spirally shaped pipeline section is in the same way clearly defined by the word spiral and there should be no need to specify the detailed definition of a spiral.

Claim 2, 3

Claim 2 and 3, directed to an alternative embodiment having “V” form rather than spiral form, has been cancelled.

Claim rejections 35 USC §103

Based upon the above reasoning, it is believed that the examiner has not identified any combination of references that disclose all of the features from the claims rejected as obvious. A prima facie case of obviousness has therefore not been established.